(Formerly known as the Georgia Conference on Information Literacy)

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Embracing Google Scholar: Introducing Students to Better Research

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Introducing Students To Better Research

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Honors Chemistry Portfolio Abstract Project - Annotated Bibliography
Due at the beginning of class on Thursday, November 19

Name _____ Period _____

Points from start-up assignment (of 10) _____ Points from research diary (of 15) _____

Points from progress check (of 10) _____ Annotated Bibliography (of 65) _____

Total Score _____

Compile all information in a three-prong folder in this order:
Cover sheet (this page), Start-up assignment, Research diary, Annotated Bibliography
Use a colored sheet of paper or a divider to separate the research diary from the annotated bibliography.

The annotated bibliography must be typed in a 12 point font with one inch margins. NO CREDIT will be awarded for a handwritten bibliography.

Begin your annotated bibliography with your question or hypothesis. Use only one question or hypothesis for the entire bibliography. Your question or hypothesis must relate to a natural science. NO CREDIT will be awarded for the entire project if you leave off the question or hypothesis.

For each article of the ten articles that you choose, include:
A. The complete citation in APA format.(2 points) (http://owl.english.purdue.edu/owl/resource/560/07/)
B. A copy of the abstract (1/2 point) (Just cut and paste it into the document.)
C. Annotation (4 points): Answer these questions in complete sentences. *What were the important points of the article? How does this article relate to your question or hypothesis? Why did you select this article over the rejected articles in your diary?* You do not have to read the full text of the article. You may make your judgments based on the abstract alone.

SAMPLE
Question: How can the effects of acid rain in an urban setting be minimized?
Article 1:
A: Baghni, I.M., Lyon, S.B. (2005). Inhibition of mild steel by strontium chromate in artificial acid rain solution. *Corrosion Engineering, Science and Technology*, 40(2), 165-170.
B: The inhibition of mild steel in an artificial acid rain solution (pH 4·5) in low concentrations of strontium chromate pigment has been evaluated using a range of methods: potentiodynamic polarisation, electrochemical impedance, X-ray photoelectron spectroscopy and solution analysis. The individual effects of strontium and chromate have been evaluated and have been used to estimate inhibitor efficiency and film composition, and to determine the possible inhibition mechanism. The results show that, at low concentration, strontium chromate affects the cathodic reaction, with reduction of Cr^{6+} to Cr^{3+}, and the surface film was composed of magnetite and hydrated chromium hydroxide. The presence of strontium was not found significantly to affect the inhibitory performance.
C: Strontium chromate pigment on steel was tested to see how well it could prevent corrosion from acid rain. The strontium was found to have no significant effect but the chromium in the chromate did have an effect. This article relates to how paints can protect metal structures from acid rain. I chose this article because other chromate compounds might be tested to see if the chromium can be delivered in paints made from other salts.

Portfolio Abstract Project – Start-up Assignment
Ten points

Pick a research topic. 1. Write it here:
2. List 5 keywords associated with your topic (synonyms, concepts, etc):

Go to Google: www.google.com
Type in a search for your topic. 3. Write your search terms here:
4. How many results did you get?
5. What are the names of the top 3 results? Don't include ads!

At the top, click "more". Then click "Scholar".
6. How many results did you get?
Click "Recent Articles." Change "since 2004" to "since 2007".
7. How many results did you get?
8. What are the names of the top 3 results?

Pick one interesting article.
9. What is the article title (in blue)?
10. What is the journal title (in green)?
11. How many times has this article been cited?
Click the article title to find the abstract.
12. What is this article about? (2-3 sentences)
13. Would you use this article in a research project? Yes/No

Use the back arrow to go back to the Google page with articles since 2007.
Use the "cited by" link to find more articles on the topic. Choose one article.
14. What is the article title?
15. What is the journal title?
Click the article title to find the abstract.
16. What is this article about? (2-3 sentences)
17. Would you use this article in a research project? Yes/No

Use the back arrow to go back to the Google page with articles since 2007.
Use the "related articles" link to find more articles on the topic. Choose one article.
18. What is the article title?
19. What is the journal title?
Click the article title to find the abstract.
20. What is this article about? (2-3 sentences)
21. Would you use this article in a research project? Yes/No

Based on these three articles, think of a research question/hypothesis.
22. Write it here:

Portfolio Abstract Project – Research Diary

Your annotated bibliography will consist of 10 articles on your question or hypothesis. In this diary, you will record at least 20 articles you encounter during this search. For each article you encounter, record the article title, journal title, and main points of the abstract (as you did in the start-up assignment). The diary may be typed or handwritten in ink. Remember though that if I can't read your writing, you get no credit.

ENTRY FORMAT:
Article number
Date Found:
Article Title:
Journal Title:
Abstract Notes:
Keep? Yes/No

After every five articles, complete a reflection. Record your current question and reflect upon it in complete sentences. Mandatory questions for each reflection are provided. Consider how you can better revise or refine your research question. If you have a good question, you may not need to change it at all. You can change your question at any point during the project, but the change must be justified with a complete reflection.

REFLECTION FORMAT:
Current Question: *Write it here.*
Reflection: *How do my articles relate to this question? Can my articles help answer the question? If so, how? Is my question too broad or too narrow? Do my articles suggest another question? If so, what?*
Revised Question: *if needed*

Your diary must include at least 20 articles. You will not use all of the diary articles in the annotated bibliography. Indeed, some of these articles may be irrelevant to your final question. It may also be that some articles are relevant; they just aren't the best for your specific research question.

When you write your annotated bibliography, choose ten of the articles. You can type the article title and journal title in the Google Scholar search box to find the original abstract again.

Progress Check (Due at the beginning of class Monday, October 26): 10 points
The research diary must contain ten articles and two reflections for the full ten points. Please note that the start-up assignment already contains three articles that count towards your ten articles for this check. Assemble these entries in your three-prong folder behind the cover page and start-up assignment.

Final Diary Rubric (Due with your annotated bibliography on Thursday, November 19): 15 points
Each article: ½ point for completion (up to 10 points) (The start-up articles also count here.)
Quality of reflections may earn the students an additional 5 points.

SAMPLE ENTRY:
Article #1
Date Found: 5 January 2009
Article Title: Inhibition of mild steel by strontium chromate in artificial acid rain solution.
Journal Title: Corrosion Engineering, Science and Technology
Abstract Notes: Strontium had no effect, chromium in chromate did have an effect
Keep? Yes